

REMARKS

This Amendment is submitted in reply to the final Office Action mailed on July 21, 2008. A petition for a two month extension of time is submitted herewith. The Director is authorized to charge the amount of \$490.00 for the cost of the petition for a two month extension of time and any additional fees which may be required, or to credit any overpayment to Deposit Account No. 02-1818. If such a withdrawal is made, please indicate the Attorney Docket No. 112701-735 on the account statement.

Claims 1-19 are pending. Claims 1-2, 4-13 and 16-18 were previously withdrawn. In the Office Action, Claims 3, 14-15 and 19 are rejected under 35 U.S.C. § 112. Claims 3, 14 and 19 are rejected under 35 U.S.C. § 102. Claims 14, 15 and 19 are rejected under 35 U.S.C. § 103. In response, Claims 3, 14-15 and 19 have been amended. In view of the amendments and/or for the reasons set forth below, Applicants respectfully request that the rejections be withdrawn.

In the Office Action, Claims 3, 14-15 and 19 are rejected under 35 U.S.C. § 112, first paragraph as allegedly being indefinite for failing to point out and distinctly claim the subject matter which Applicants regard as the invention. Specifically, the Patent Office alleges that "[t]he claims recite 'glucosamine is present in the product in an amount greater than about 150 mg/kg dry matter.' The specification does not define what is meant by 'greater than about' and only discusses that glucosamine may be present in amounts 'above 150 mg per kg.'" See, Office Action, page 3, lines 6-9. In response, Applicants have amended Claims 3, 14-15 and 19 to delete the word "about." Based on at least these reasons, Applicants respectfully submit that Claims 3, 14-15 and 19 fully comply with 35 U.S.C. § 112, first paragraph.

Accordingly, Applicants respectfully request that the rejection of Claims 3, 14-15 and 19 under 35 U.S.C. § 112, first paragraph be reconsidered and withdrawn.

In the Office Action, Claims 3, 14 and 19 are rejected under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, as being obvious under U.S. Patent No. 5,916,622 to Ecochard ("*Ecochard*"). Applicants respectfully disagree with and traverse these rejections for at least the reasons set forth below.

Independent Claims 3, 14-15 and 19 recite, in part, products or compositions comprising glucosamine obtained by drying fresh or raw plant materials, wherein the glucosamine is present

in the products or compositions in amounts greater than 150 mg/kg dry matter. In contrast, Applicants respectfully submit that *Ecochard* is deficient with respect to the present claims.

Applicants submitted herewith an Affidavit under 37 C.F.R. §1.132 ("*Affidavit*" attached hereto as Exhibit A) that demonstrates the deficiencies of the prior art with respect to the present claims. As supported by the *Affidavit*, and as taught by Applicants' specification, the present disclosure is directed, at least in part, toward products and compositions containing glucosamine generated from plant materials through a drying process for the maintenance of joint health, or prevention, alleviation and/or treatment of osteoarthritis, or the improvement of the skin quality and prevention or restoration of age-related alterations of the skin. Surprisingly, Applicants have found that glucosamine can actually be formed in high amounts during a controlled drying process of some raw plant materials. See, specification, page 8, lines 14-15. The drying process of the present disclosure surprisingly provides a way to increase/obtain glucosamine at high levels (*i.e.*, higher than amounts in corresponding fresh (not dried) material). It is likely that during the drying process, the glucosamine comes not from the direct degradation of macromolecules, but, rather, from a release of free fructose and amino acid, followed by the first steps of a Maillard reaction. See, specification, page 11, lines 4-22. In contrast, Applicants respectfully submit that *Ecochard* is deficient with respect to the pending claims because *Ecochard* fails to disclose or suggest each and every element of the present claims.

For example, and as supported by the *Affidavit*, *Ecochard* fails to disclose or suggest products or compositions comprising glucosamine obtained by drying fresh or raw plant materials as required, in part, by currently amended independent Claims 3, 14-15 and 19. Further, *Ecochard* also fails to disclose or suggest wherein the glucosamine is present in the products or compositions in amounts greater than 150 mg/kg dry matter as required, in part, by currently amended independent Claims 3, 14-15 and 19. In contrast to the present claims, and as supported by the *Affidavit*, *Ecochard* is entirely directed toward the treatment of chicory powder with conditions that melt the powder so that the powder particles are agglomerated. See, *Ecochard*, Abstract. The treatment of the chicory powder is in direct contrast to the present invention that uses fresh plants to obtain increase levels of glucosamine. Applicants respectfully submit that this significant difference does not allow the conclusion that both methods will produce the same plant material with high levels of glucosamine.

The Patent Office asserts that *Ecochard* “teaches that the chicory is dried (formed into a powder) by heating the chicory to a temperature of 95°C, which is below 110°C, as instantly claimed.” The Patent Office further asserts that “[the] dried chicory would necessarily contain glucosamine because it was produced in the same manner as instantly disclosed (*i.e.*, drying the chicory at a temperature below 110°C for less than one week).” See, Office Action, page 4, lines 3-11. However, Applicants respectfully submit that the Patent Office has misunderstood the disclosure of *Ecochard*.

For example, *Ecochard* discloses that soluble chicory powder is obtained by atomizing the aqueous extract of chicory. See, *Ecochard*, col. 1, lines 14-18. The soluble chicory powder of *Ecochard* is used to form a layer of a determined thickness on a feeder device that is then subjected to a higher temperature in a heating station. The temperatures are high enough to obtain surface melting of the particles constituting the layer. The temperatures are normally about 95°C. The layer is usually held at this temperature for about 90 seconds or about 600 seconds. The heating ensures agglomeration of the particles of the already formed chicory powder. See, *Ecochard*, col. 3, line 50-col. 4, line 27.

From this disclosure, it is clear that the chicory powder is formed prior to exposure to the heating station to agglomerate the chicory powder particles. While the powder must be formed prior to the heating station, *Ecochard* neither discloses nor suggests how the chicory powder was formed. Thus, to conclude that the powder was formed in the same drying process of the present disclosure, which involves the drying of fresh or raw plant materials, is mere speculation at best. Further, because the powder is formed prior to the heating station, Applicants also respectfully submit that it is improper for the Patent Office to assert that *Ecochard* “teaches that the chicory is dried (formed into a powder) by heating the chicory to a temperature of 95°C,” or that “[the] dried chicory would necessarily contain glucosamine because it was produced in the same manner as instantly disclosed (i.e. drying the chicory at a temperature below 110°C for less than one week).” See, Office Action, page 4, lines 3-11 (emphasis added). Instead, while *Ecochard* may be said to disclose exposing a chicory powder to such conditions, does not disclose exposing fresh or raw plant materials to such conditions as is required, in part, by the present claims.

The Patent Office also asserts, however, that “a person of ordinary skill in the art would reasonably expect the composition [of *Ecochard*] to contain essentially the same components in the same amounts as the composition instantly claimed because it was made in the same way.” See, Office Action, page 4, lines 12-16 (emphasis added). However, for at least the reasons discussed above, Applicants respectfully submit that it is clear from the disclosure of *Ecochard* that the powder is not formed in the heat station but, rather, prior to the heat station and, as such, *Ecochard* does not disclose producing the chicory powder in the same process as disclosed in the present disclosure. Further, the Patent Office even admits that “*Ecochard* does not explicitly teach that the foodstuff comprises glucosamine in the amount instantly claimed.” See, Office Action, page 4, lines 12-16.

Anticipation is a factual determination that “requires the presence in a single prior art disclosure of each and every element of a claimed invention.” *Lewmar Marine, Inc. v. Barient, Inc.*, 827 F.2d 744, 747 (Fed. Cir. 1987). Federal Circuit decisions have repeatedly emphasized the notion that anticipation cannot be found where less than all elements of a claimed invention are set forth in a reference. See, e.g., *Transclean Corp. v. Bridgewood Services, Inc.*, 290 F.3d 1364, 1370 (Fed. Cir. 2002). As such, a reference must clearly disclose each and every limitation of the claimed invention before anticipation may be found. Because *Ecochard* fails to disclose or suggest products or compositions comprising glucosamine obtained by drying fresh or raw plant materials, or wherein the glucosamine is present in the products or compositions in amounts greater than 150 mg/kg dry matter, and because the Patent Office even admits that *Ecochard* fail to disclose or suggest each and every limitation, Applicants respectfully submit that the rejections under 35 U.S.C. §102/103 are improper.

Accordingly, Applicants respectfully request that the rejections of Claims 3, 14-15 and 19 under 35 U.S.C. §102/103 be withdrawn.

In the Office Action, Claims 14 and 19 are rejected under 35 U.S.C. § 103(a) as being obvious U.S. Patent No. 6,420,350 to Fleischner (“*Fleischner*”). Claims 14-15 are rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 5,141,964 to Noel (“*Noel*”). In contrast, Applicants respectfully submit that the cited references are deficient with respect to the present claims.

As supported in the *Affidavit*, both *Fleischner* and *Noel* fail to disclose or suggest products or compositions comprising glucosamine obtained by drying fresh or raw plant materials as required, in part, by currently amended independent Claims 14-15 and 19. Further, *Fleischner* and *Noel* also fail to disclose or suggest wherein the glucosamine is present in the products or compositions in amounts greater than 150 mg/kg dry matter as required, in part, by currently amended independent Claims 14-15 and 19.

With respect to *Fleischner*, the Patent Office asserts that “a person of ordinary skill in the art would have had a reasonable expectation of success in adjusting the amount of glucosamine within the composition and would have been motivated to do so in order to optimize the amount which yield the most beneficial weight loss results.” See, Office Action, page 6, lines 1-4. However, Applicants respectfully disagree. While *Fleischner* is directed toward a weight loss product having supplemental compositions, see, *Fleischner*, Abstract, Applicants respectfully submit that the skilled artisan would not have had a reasonable expectation of success in adjusting the amount of glucosamine to aid in the loss of weight because the skilled artisan would not have been aware of the ability to obtain high amounts of glucosamine by drying fresh or raw plant materials, as is described in the present invention.

Specifically, as supported in the *Affidavit*, Applicants have found that glucosamine can actually be formed in high amounts during a controlled drying process of some raw plant materials. See, specification, page 8, lines 14-15. The drying process of the present disclosure surprisingly provides a way to increase/obtain glucosamine at high levels (*i.e.*, higher than amounts in corresponding fresh (not dried) material). Applicants also respectfully submit that, as demonstrated in the specification, at the time of the invention, the drying process of the present invention was the only way to increase/obtain glucosamine at high levels from plants. See, specification, page 11, lines 4-5. In contrast, and as supported by the *Affidavit*, *Fleischner* fails to disclose or suggest any methods by which the glucosamine sulfate was obtained, let alone disclose specific processes for drying raw or fresh plant material as required, in part, by the present claims.

Further, the Patent Office even admits that “*Fleischner* does not necessarily teach that the glucosamine was obtained or generated from a dried plant” and that “*Fleischner* does not explicitly teach that the glucosamine is present in the amount instantly claimed.” See, Office

Action, page 5, lines 17-21. Because *Fleischner* fails to disclose or suggest products or compositions comprising glucosamine obtained by drying fresh or raw plant materials, or wherein the glucosamine is present in the products or compositions in amounts greater than 150 mg/kg dry matter, and because the Patent Office even admits that *Fleischner* fails to disclose or suggest each and every limitation, Applicants respectfully submit that the rejection under 35 U.S.C. §103 in view of *Fleischner* is improper.

With respect to *Noel*, the Patent Office also asserts that “a person of ordinary skill in the art would have had a reasonable expectation of success in adjusting the amount of glucosamine in the composition taught by *Noel* in order to achieve a beneficial level of moisture in the skin of an individual.” See, Office Action, page 7, lines 10-13. However, for many of the same reasons discussed above, Applicants respectfully submit that the skilled artisan would not have had a reasonable expectation of success in adjusting the amount of glucosamine to achieve a beneficial level of moisture in the skin because the skilled artisan would not have been aware of the ability to obtain high amounts of glucosamine by drying fresh or raw plant materials, as is described in the present invention.

Specifically, as supported in the *Affidavit*, Applicants have found that glucosamine can actually be formed in high amounts during a controlled drying process of some raw plant materials. See, specification, page 8, lines 14-15. The drying process of the present disclosure surprisingly provides a way to increase/obtain glucosamine at high levels (*i.e.*, higher than amounts in corresponding fresh (not dried) material). Applicants also respectfully submit that, as demonstrated in the specification, at the time of the invention, the drying process of the present invention was the only way to increase/obtain glucosamine at high levels from plants. See, specification, page 11, lines 4-5. In contrast, and as supported by the *Affidavit*, *Noel* fails to disclose or suggest any methods by which the glucosamine was obtained, let alone disclose specific processes for drying raw or fresh plant material as required, in part, by the present claims.

Further, the Patent Office also admits that “*Noel* does not necessarily teach that the glucosamine was obtained in the manner instantly claimed (by drying a plant)” and that “*Noel* does not explicitly teach that the glucosamine is the same as that instantly claimed.” See, Office Action, page 6, line 21-page 7, line 4. Because *Noel* fails to disclose or suggest products or

compositions comprising glucosamine obtained by drying fresh or raw plant materials, or wherein the glucosamine is present in the products or compositions in amounts greater than 150 mg/kg dry matter, and because the Patent Office even admits that *Noel* fails to disclose or suggest each and every limitation, Applicants respectfully submit that the rejection under 35 U.S.C. §103 in view of *Noel* is improper.

In sum, *Fleischner* and *Noel* fail to disclose each and every element of the present claims. Moreover, the Patent Office even admits that *Fleischner* and *Noel* fail to disclose each and every limitation of the present claims. See, Office Action, page 4, lines 14-15; page 5, lines 7-8. Therefore, for at least the reasons discussed above, Applicants respectfully submit that the obviousness rejections of Claims 14-15 and 19 are improper.

Accordingly, Applicants respectfully request that the rejections of Claims 14-15 and 19 under 35 U.S.C. §103(a) be withdrawn.

For the foregoing reasons, Applicants respectfully request reconsideration of the above-identified patent application and earnestly solicit an early allowance of same. In the event there remains any impediment to allowance of the claims which could be clarified in a telephonic interview, the Examiner is respectfully requested to initiate such an interview with the undersigned.

Respectfully submitted,

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